

REMARKS

This amendment is submitted in response to the Office Action mailed April 24, 2003. Favorable reconsideration of the application, as amended, is respectfully requested.

Claim 21 has been amended to reinsert the words "bulking material". These words were present in the original claim, and therefore it is submitted that the amendment should be entered because it raises no new issues of patentability. The claim has also been amended to delete the word "mineral" after "clay" to be consistent with the description in the specification; this amendment also raises no new issues of patentability.

Claims 21-22 were rejected under 35 U.S.C. 102(e) as being anticipated by Chao (5,110,839) and Chao et al. (5,109,030), each taken individually. These patents disclose foamed cementitious compositions containing a hydraulic substance and a polymeric foam stabilizer. The compositions can optionally contain fibers such as ceramic fibers, glass fibers, metallic fibers, mineral fibers, and other natural or synthetic fibers. In the office action, the Examiner stated that the teaching of "ceramic fibers" is sufficient in completing anticipation of applicants' claims as they now stand. Applicants respectfully submit that the claims are neither anticipated by nor obvious over the cited patents.

The "clay" as defined in the patent application and recited in claim 21 cannot be ceramic fibers. As described in the specification at page 10, lines 17-26:

One or more types of clay can be included in the composition as a bulking aid which provides an inert filler for the cover. In addition, the clay assists the polymer in absorbing water and allowing the bulking/setting material to "wet set". The clay further increases the foam integrity, and adds color to the composition. As known in the art, clay comprises a group of crystalline, finely divided earthy materials generally considered to be hydrates of alumina and silica, with iron oxide and magnesia as common minor components.

Ceramic fibers are continuous fibers, not finely divided materials as described in the specification. (See the definition of "ceramic fibers" on the web page entitled

"Composites/Plastics", at the address <http://plastics.about.com/library/glossary>. A copy of that page is enclosed with this amendment.) Also, ceramic fibers are not suited for assisting the polymer in absorbing water as described in the specification, since ceramic fibers are not significantly absorbent because they are hard and glassy. Moreover, ceramic fibers are not hydrates of alumina and silica as described in the specification, because the heating process used to make the ceramic drives out the water from the ceramic.

A person of ordinary skill in the art would not consider ceramic fibers to be the equivalent of clay. Ceramic fibers can be made of alumina, silica, and other metal oxides, or nonoxide materials such as silicon carbide. However, these materials are subjected to a manufacturing process including fiber forming and heating to convert the starting material into ceramic fibers. The end product is ceramic, not clay.

The rules of claim construction prevent the term "clay" in claim 21 from being interpreted to include ceramic fibers. Claim 22 recites the composition defined in claim 21 additionally comprising a fibrous material. It would not make sense to state that the clay in claim 21 comprises ceramic fibers, and that the composition additionally comprises fibers.

For all these reasons, it is respectfully submitted that claims 21 and 22 are novel and nonobvious over the Chao patents.